



Mineral Industry Surveys

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SULFUR IN MARCH 2003

During the month, production of recovered elemental sulfur was 757,000 metric tons, according to the U.S. Geological Survey (USGS). March production was 11% higher than February 2003, and 11% higher than that of March 2002. Shipments were 12% higher than those of February 2003. Producer's ending stocks for March 2003 were 203,000 tons.

Import and export data for March 2003 were not available at the time of publication and will be published in the Sulfur in April 2003 Mineral Industry Surveys along with apparent consumption. Imports of recovered sulfur for February 2003 were estimated to be 145,000 tons; exports were 63,000 tons. Imports of sulfuric acid for February 2003 were 57,000 tons; exports were 16,000 tons.

Significant adjustments have been made to the sulfur import data. Reports from the U.S. Census Bureau appear to underreport sulfur imports, especially material from Canada. The revised figures are based on Census information, data collected and published by the Alberta (Canada) Energy and Utilities Board (EUB) in its monthly production report, and information from other published sources. The EUB report is particularly valuable because the majority of Canadian sulfur is produced in that Province, and most of the Canadian sulfur that enters the United States comes from Alberta. When the data problems are solved, the USGS will resume using Census data exclusively.

TABLE 1
SALIENT SULFUR STATISTICS¹

(Thousand metric tons)

Period	Production			Shipments, all sources
	Petroleum ²	Natural gas	Total	
2002:				
January-December	6,730	1,750	8,480	8,470
January-March	1,620	451 ^r	2,070 ^r	2,070 ^r
March	556	128	685	687
April	581	122	702	683
May	571	150	721	758
June	549	136	685	680
July	561	149	711	715
August	585	125	710	721
September	539	132	671	656
October	541	164	704	695
November	577 ^r	154	730 ^r	744
December	603 ^r	167	770 ^r	746 ^r
2003:				
January ^r	605	169	774	770
February ^r	532	148	680	664
March ^p	600	157	757	742
Total	1,740	474	2,210	2,180

^pPreliminary. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes a small quantity from coking operations.

TABLE 2
U.S. IMPORTS OF SULFUR¹

(Thousand metric tons and thousand dollars)

Period	Canada		Mexico		Total, all countries ²	
	Quantity ^e	Value ³	Quantity	Value ³	Quantity ^e	Value ³
2002:						
January-December	1,100	9,450	430	11,300	1,710	26,800
January-February	161 ^r	1,050	60	826 ^r	228 ^r	2,580
February	86	546	30	418	116	978
March	93	722	44	863	147	1,910
April	95	668	30	663	150	1,900
May	89	409	44	1,100	142	1,730
June	67	106	30	774	97	1,270
July	113	405	44	1,140	175	1,960
August	95	1,860	30	944	138	3,240
September	86	1,050	45	1,420	148	3,010
October	108	1,240	29	944	175	3,290
November	91	843	29	942	143	2,230
December	99	1,100	45	1,640	171	3,720
2003:						
January	100	1,280	44	2,460	144	3,740
February	100	2,330	45	1,850	145	4,250
Total	200	3,610	89	4,310	289	7,990

^eEstimated. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include other countries not listed.

³Declared customs valuation.

Source: U.S. Census Bureau; as adjusted by U.S. Geological Survey.

TABLE 3
U.S. IMPORTS OF SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Canada			Europe			Total, all countries ²		
	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³
2002:									
January-December	615	201	17,900	217	71	3,750	1,060	344	36,400
January-February	98	32	3,020	33	11	251	227	73	7,060
February	50	16	1,420	(4)	(4)	14	86	27	2,850
March	82	27	2,190	10	3	70	118	37	3,160
April	89	29	2,040	16	5	63	111	36	3,820
May	50	16	1,750	17	6	219	67	22	2,080
June	70	23	1,770	12	4	254	83	27	2,460
July	37	12	1,300	21	7	541	61	20	2,520
August	22	7	878	22	7	224	51	17	5,430
September	37	12	1,130	19	6	319	59	19	2,120
October	33	11	1,170	9	3	255	47	15	2,110
November	51	17	1,390	28	9	1,010	93	31	3,080
December	45	15	1,310	30	10	548	142	47	2,590
2003:									
January	38	13	1,330	29	9	511	67	22	1,900
February	30	10	1,080	25	8	836	57	19	2,360
Total	68	23	2,400	54	17	1,350	124	41	4,260

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include other countries not listed.

³Declared customs valuation.

⁴Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 4
U.S. EXPORTS OF SULFUR AND SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Sulfur		Sulfuric acid		
	Quantity	Value ²	Quantity	Sulfur content	Value ²
2002:					
January-December	555	40,000	148	49	12,800
January-February	85	6,510	24	8	1,860
February	59	3,530	11	4	845
March	34	2,560	9	3	761
April	30	2,710	12	4	953
May	8	1,980	13	4	1,070
June	127	6,650	13	4	1,100
July	2	189	12	4	887
August	49	1,340	15	5	1,230
September	70	6,920	16	5	1,840
October	76	3,450	11	4	1,040
November	60	2,400	9	3	839
December	14	5,300	14	5	1,190
2003:					
January	107	3,440	12	4	1,380
February	63	3,410	16	5	1,150
Total	170	5,650	28	9	2,520

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Declared f.a.s. (free alongside ship) valuation.

Source: U.S. Census Bureau.

TABLE 5
U.S. CONSUMPTION OF SULFUR¹

(Thousand metric tons)

Period	Domestic sources ²	Imports ^e	Consumption
2002:			
January-December	7,330	1,600	8,920
January-February	712	112	824
February	584	116	700
March	653	147	800
April	653	150	803
May	749	142	891
June	553	97	650
July	713	175	888
August	672	138	810
September	586	148	734
October	619	175	794
November	684	143	827
December	732 ^r	171	903 ^r
2003:			
January	663 ^r	144	807 ^r
February	601	145	746
Total	1,260	289	1,550

^eEstimated. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Calculated as shipments minus exports.

TABLE 6
RECOVERED SULFUR PRODUCED AND SHIPPED IN THE UNITED STATES,
BY PAD (PETROLEUM ADMINISTRATION FOR DEFENSE) DISTRICT¹

(Thousand metric tons)

District and source	March 2003 ^p		February 2003		Total 2003 ²		Year to date 2002 ²	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	20	19	19 ^r	20	60	61	67 ^r	97 ^r
Natural gas	2	2	2	2	6	6	8	8
Total	22	21	21	21	66	66	76 ^r	75 ^r
PAD 2:								
Petroleum and coke	73	72	72 ^r	72 ^r	222	215	203 ^r	200 ^r
Natural gas	4	4	3	3	11	11	13	13
Total	77	76	76 ^r	76 ^r	233	226	216 ^r	213 ^r
PAD 3: ³								
Petroleum and coke	388	375	333	326	1,110	1,100	1,050 ^r	1,060 ^r
Natural gas	31	29	29 ^r	31 ^r	96	97	150 ^r	151 ^r
Total	419	404	363 ^r	357 ^r	1,210	1,200	1,200 ^r	1,210 ^r
PAD 4 and 5: ⁴								
Petroleum and coke	120	121	107	99	345	333	304 ^r	302
Natural gas	120	120	113 ^r	111 ^r	361	349	280 ^r	272 ^r
California	98	99	82	78	271	268	212 ^r	208 ^r
Total	240	241	220 ^r	211 ^r	706	682	584 ^r	575 ^r
Grand total	757	742	680 ^r	664 ^r	2,210	2,180	2,070 ^r	2,070 ^r

^pPreliminary. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include revisions to prior months.

³Includes the U.S. Virgin Islands.

⁴Quantities produced and shipped in California included in petroleum and natural gas. California total shown for information purposes only.

TABLE 7
COMPARATIVE SULFUR AND SULFURIC ACID STATISTICS¹

(Million metric tons per year [annualized basis] and dollars per metric ton for period shown)

	2003			2002
	March	February	Year to date	total
Production	8.91 ^p	8.86 ^r	8.97	8.48
Shipments	8.74 ^p	8.66 ^r	8.82	8.47
Exports of sulfur	NA	0.82	1.05	0.56
Imports of sulfur:				
Canada	NA	1.30 ^e	1.24 ^e	1.10
Mexico	NA	0.59	0.55	0.43
Total ²	NA	1.89 ^e	1.79 ^e	1.71
Export of H ₂ SO ₄	NA	0.21	0.17	0.15
Import of H ₂ SO ₄ :				
Canada	NA	0.39	0.42	0.62
Europe	NA	0.33	0.33	0.22
Total ²	NA	0.74	0.77	1.06
Consumption: ³				
Domestic sources	NA	7.83	7.82	7.92
Imports	NA	1.89 ^e	1.79 ^e	1.71
Total	NA	9.72	9.61	9.57
Sulfur export values ⁴	NA	\$54	\$33	\$72
Sulfur import values: ⁴				
Canada	NA	\$23	\$18	\$9
Mexico	NA	\$41	\$48	\$26
Average	NA	\$29	\$29	\$16
H ₂ SO ₄ export values ⁴	NA	\$72	\$90	\$86
H ₂ SO ₄ import values: ⁴				
Canada	NA	\$36	\$35	\$29
Europe	NA	\$33	\$25	\$17
Average	NA	\$41	\$34	\$34

^eEstimated. ^pPreliminary. ^rRevised. NA Not available.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes other countries not listed.

³Because March trade data were not available, March consumption was not determined.

⁴Average value per ton for most recent data available.